



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/490,582	01/25/2000	Tatsushi Inagaki	JA998-218	7320

7590

05/07/2004

Owen J. Gamon
IBM Corporation Dept. 917
3605 Highway 52 North
Rochester, MN 55901-7829

EXAMINER

HOANG, PHUONG N

ART UNIT	PAPER NUMBER
----------	--------------

2126

DATE MAILED: 05/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/490,582

Applicant(s)

INAGAKI ET AL.

Examiner

Phuong N. Hoang

Art Unit

2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2000.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 21 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1 - 2, 4 - 6, 8 - 9, 11 - 13, 15 - 16, and 18 - 20 is/are rejected.
7) ☐ Claim(s) 3, 7, 10, 14, 17 and 21 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1 – 21 are pending for examination.
2. Claims 3, 7, 10, 14, 17, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1 – 2, 4 – 6, 8 – 9, 11 – 13, 15 – 16, and 18 - 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sher, US patent no. 5,668,751 in view of Gee, US patent no. 6,374,286.**

Art Unit: 2126

5. **As to claim 1**, Sher teaches a method for processing a multidimensional array object comprising array objects, the method comprising the steps of:

managing flag (flag, col. 7 lines 1 – 8) for the array (array of antifuse, col. 7 lines 1 - 8), the flag representing whether it is possible to optimize (optimized antifuse elements, col. 7 lines 1 - 8) a process for elements of the array; and

executing a machine code corresponding to a state of the flag (col. 6 lines 66 – col. 7 line 10).

Sher does not teach the array is the multidimensional array object.

Gee teaches the array is the multidimensional array object (multidimensional array objects, col. 17 lines 65 – col. 18 line 8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Sher and Gee's system because Gee's multidimensional array object can store more data, and is easy for indexing and manipulation.

6. **As to claims 2 and 6**, Sher teaches the step comprising of inverting the flags when a predetermined condition is no longer met (inverter, col. 4 lines 27 – 36).

7. **As to claims 4 and 5**, Sher teaches the step of wherein the machine code is either a machine code optimized or a machine code not optimized according to the predetermined condition (one of ordinary skill in the art can recognize that it is the purpose of the flag for optimization).

8. **As to claim 8**, it is the storage medium claim of claim 1. See the rejection for claim 1 above.

9. **As to claim 9**, see rejection for claim 2 above.

10. **As to claims 11 – 13**, see rejection for claims 4 – 6 above.

11. **As to claim 15**, it is the system claim of claim 1. See the rejection for claim 1 above.

12. **As to claim 16**, see rejection for claim 2 above.

13. **As to claim 18 – 20**, see rejection for claims 4 – 6 above.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Leong, US patent no. 5,212,663, 04-2002, demonstrating resettable static RAM.

O'Connor, US patent no. 6,532,531, 09-1997, demonstrating improving speed of invocation.

Hardwick, "Tuning FFTW for win32 compiler", 09-1998, demonstrating compiler flags.

Prashant, "Synchronizing a sound stream", no date, demonstrating optimization flag.

Goedecker, "Matrix-Vector Multiplication", 11-1998, demonstrating performance optimization.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong N. Hoang whose telephone number is (703) 605-4239. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703)305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2126

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ph
April 30, 2004


MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100